CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 89-144

NPDES NO. CA 0029572

WASTE DISCHARGE REQUIREMENTS FOR:

XEROX CORPORATION
HAYWARD FACILITY BUILDING A
HAYWARD, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Xerox Corporation, Hayward Facility Building A, hereinafter called the discharger, by application dated July 6, 1989, has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. The discharger formerly operated an electronics manufacturing plant at 24500 Industrial Boulevard in the City of Hayward, Alameda County. The facility consists of one building (Building A) and the surrounding property. The site is currently unoccupied. See Attachment A.

3. The discharger has been involved with soil and groundwater investigations at this facility since February 1988. These investigations determined that the groundwater is polluted with various industrial solvents including 1,1-dichloroethylene, 1,1-dichloroethane, 1,1,1-trichloroethane, trichloroethylene and Freon 113.

4. The discharger seeks to cleanup and prevent the further migration of groundwater pollutants by groundwater extraction and treatment.

5. Waste 001 consists of approximately 55 gallons per minute of extracted groundwater treated by two carbon adsorption units in series prior to discharge to an Alameda County Flood Control District storm drain which is a tributary to an open earth channel and Central San Francisco Bay.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Central San Francisco Bay and contiguous surface and ground water.

7. The existing and potential beneficial uses of the open earth channel and Central San Francisco Bay include:

   a. Contact and non-contact water recreation
   b. Wildlife habitat

c. Preservation of rare and endangered species
d. Estuarine habitat
e. Fish spawning and migration
f. Industrial process and service supply
g. Shellfishing
h. Navigation
i. Ocean commercial and sport fishing
j. Municipal and domestic water supply

8. The Basin Plan prohibits discharge of wastewater which has particular characteristics of concern to beneficial uses at any point where the wastewater does not receive a minimum dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof.

9. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 8 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

10. Exceptions to the prohibitions referred to in Finding 8 are warranted because the discharge is an integral part of a program to clean up polluted groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would effect beneficial uses. Should studies indicate chronic effects, not currently anticipated, the Board will review the requirements of this Order based upon Receiving Water Limitation C.1.e.

11. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

12. The Board adopted Resolution No. 88-160 on October 19, 1988. The Resolution urges dischargers of extracted groundwater from groundwater cleanup projects to reclaim their effluents to the extent technically and economically feasible and that when reclamation is not technically and economically feasible to discharge to publicly owned treatment works (POTWs). If neither reclamation nor discharge to POTWs is technically and economically feasible, it is the intent of the Board to adopt NPDES permits authorizing the discharge of extracted groundwater.

13. The discharger submitted a letter dated July 21, 1989 which documents the attempts to locate groundwater reuse alternatives for the treated groundwater. For various reasons, all of the potential users have declined to accept the treated groundwater. The discharger will continue to attempt to locate a user for the treated groundwater.

14. In a letter dated December 19, 1988, the City of Hayward, Department of Public Works, denied the acceptance of the proposed discharge into the City of Hayward sanitary sewer system. The City cited a City of

Hayward Discharge Regulation which prohibits permitting the introduction of groundwater into the municipal system unless no reasonable alternative method of disposal exists. The City considers direct discharge through the NPDES permitting process to be a reasonable alternative. In addition, the City currently has a limited amount of NPDES-permitted hydraulic discharge capacity available.

15. Findings 13 and 14 have demonstrated that the Resolution stated in Finding 12 has been addressed by the discharger and the issuance of an NPDES permit is in order.

16. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance, and best engineering judgement as to best available technology economically achievable.

17. Effluent limitations and toxic effluent standards established pursuant to Sections 301, 304 and 307 of the Clean Water Act, and amendments thereto are applicable to the discharge.

18. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

19. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

20. The Board, in a public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Xerox Corporation, Hayward Facility Building A, Hayward, Alameda County, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of waste or hazardous materials in a manner which will degrade the water quality or adversely affect beneficial uses of the groundwaters of the State is prohibited.

2. The discharge (Waste 001) shall be limited to treated groundwater.

B. Effluent Limitations

1. The effluent at the point in the groundwater extraction/treatment system immediately following treatment shall not contain constituents in excess of the following limits:

Constituent	Units	Instantaneous Maximum
1,1,1-Trichloroethane	ug/l	5
1,1-Dichloroethylene	ug/l	5
1,1-Dichloroethane	ug/l	5
Trichloroethylene	ug/l	5
Freon 113	ug/l	5

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. TOXICITY: The survival of test fishes in 96-hour static renewal bioassays of the discharge of Waste 001 shall be a median of 90 percent survival and a 90 percentile value of not less than 70% survival.

Compliance of the bioassays shall be performed using the fish species specified in Part B.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption whether at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be expected to be exceeded in waters of the State in any place within one foot of the water surface:

   a. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentration(s) than specified above, the discharge shall not cause further reduction in the

concentration of dissolved oxygen.

b.	pH	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.	
c.	Un-ionized ammonia	0.025 mg/l as N 0.16 mg/l as N	Annual Median Maximum at any time

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption.

2. The discharger shall comply with the attached Self-Monitoring program as adopted by the Board and as may be amended by the Board.

3. The discharger shall also notify the Regional Board if any activity has occurred or will occur which would result in the discharge by the discharger, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order.

5. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986 except Items B.2 and C.8.

6. This Order expires September 19, 1994. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

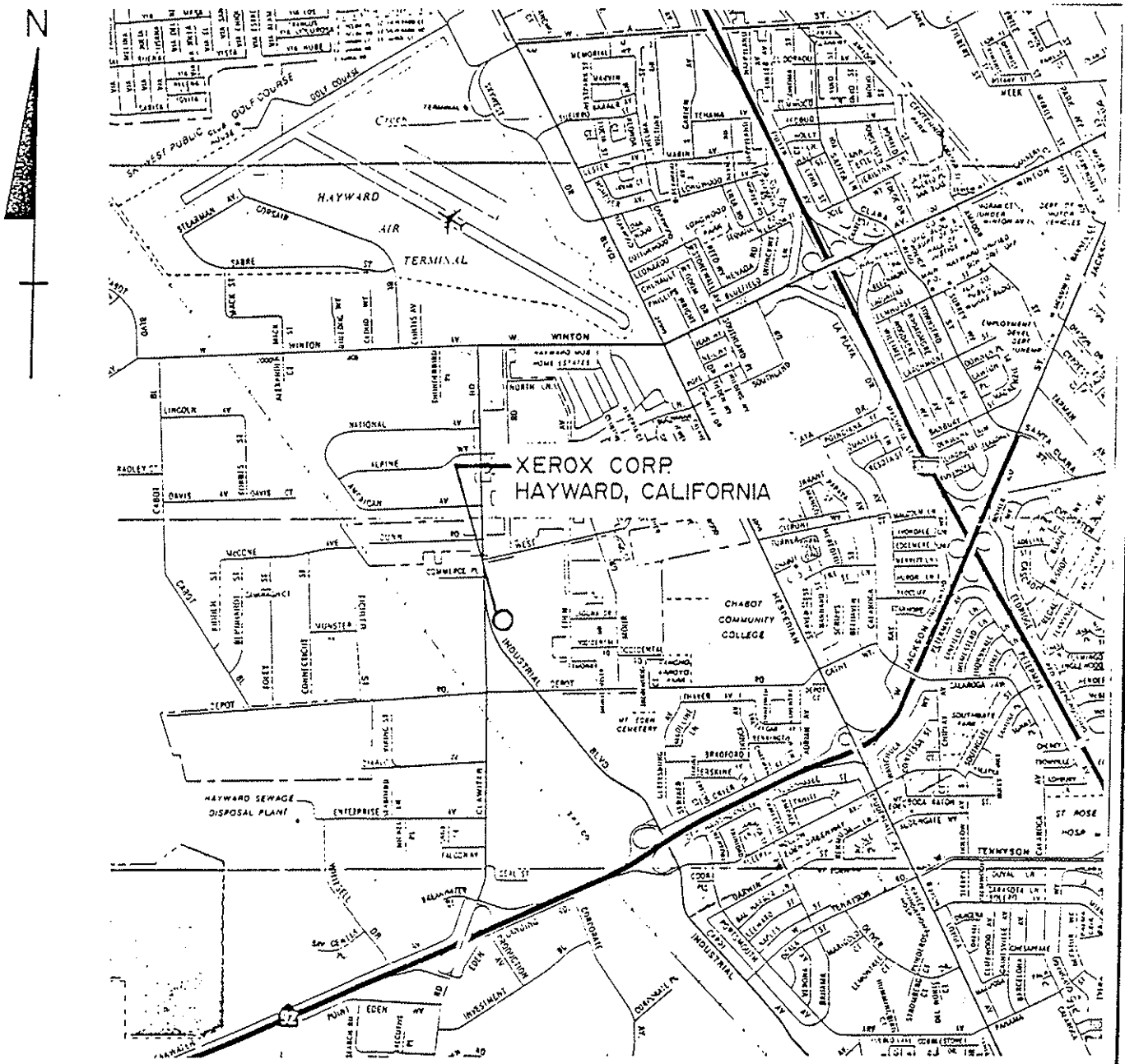
7. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a true and correct copy of an order adopted by the California Water Quality Control Board, San Francisco Bay Region on September 20, 1989.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:

Standard Provisions & Reporting Requirements, dated December 1986
Self-Monitoring Program
Site map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Attachment A

Xerox Corportation
Hayward Facility Building A
Hayward, Alameda County

DRAWN BY: MTC	DATE: 7-13-89	DRWG. NO. CK!

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

XEROX CORPORATION

HAYWARD FACILITY BUILDING A

HAYWARD, ALAMEDA COUNTY

NPDES NO. CA 0029572

ORDER NO. _____

CONSISTS OF

PART A (dated December 1986
Mod. SBTD 1/23/87)

AND

PART B

PART B

XEROX CORPORATION
HAYWARD FACILITY BUILDING A
HAYWARD, ALAMEDA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Stations	Description
I-1	At a point in the groundwater extraction/ treatment system immediately prior to treatment

B. EFFLUENT

Stations	Description
E-1	At a point in the groundwater extraction/ treatment system immediately following the first carbon unit treatment process (Waste 001)
E-2	At a point in the groundwater extraction/ treatment system immediately following the second carbon unit treatment process (Waste 001)

C. RECEIVING WATERS

Stations	Description
C-1	At a point in the Alameda County Flood Control Channel near the intersection of West St. and Clawiter Road and prior to all waste tributary to that point are present

II. BIOASSAY REQUIREMENTS

A. The fish species to be used for compliance of the bioassay shall be rainbow trout.

III. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given in Table I.

IV. Miscellaneous reporting

If any chemical additives are proposed to be used in the operation of the treatment system it shall be reported 30 days prior to their use.

V. MODIFICATION TO PART A

A. Deletions:

Sections D.2.e, D.2.g, D.3.b, E.1.e, E.1.f, E.3, and E.4.

B. Modifications:

G.4 Written reports under G.4 shall be filed each calender quarter, once in January, April, July and October.

G.4.b The report shall be prepared in a format acceptable to the Executive Officer. The example in Appendix A is provided as guidance.

G.4.e The report will be prepared in a format acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance.

G.4.e.1 Influent and Effluent Data Summary Reports shall be submitted only to the Regional Board Executive Officer, not to the EPA.

G.5 By January 30 of each year, the discharger shall submit, in place of the quarterly report, an annual report to the Regional Board covering the previous year.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 89-144.

2. Was adopted by the Board on September 20, 1989.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer or Regional Board.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachment: Table I

XEROX CORPORATION
HAYWARD FACILITY BUILDING A
HAYWARD, ALAMEDA COUNTY

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1	E-1	E-2*	C-1								
Type of Sample	G	G	G	G								
Flow Rate (gpd)		D	D									
pH (units)		D	D	Q								
Dissolved Oxygen (mg/l and % saturation)				Q								
Temperature (^{O}C)				Q								
Un-ionized Ammonia (mg/l as N)				Q								
Fish Toxicity, 96-hour (% survival)		Y*	Y*									
Volatile Chlorinated Hydrocarbons (mg/l) (1)	Q	2/M*	2/M*	Q								
Priority Pollutant Scan (including metals)		A	A									
EPA Method 624		Y*	Y*									

LEGEND FOR TABLE

G = Grab Sample
D = Once each operating day
2/M* = Twice a month for the first three (3) months of startup of operation; reduced to once a month thereafter
Q = Quarterly, once in March, June, September and December
Y* = Once within the first three weeks of startup; annually thereafter
A = One time only within the first three weeks of startup or upon commencement of discharge
E-2* = Effluent grab sample analyzed due to constituents of concern detected in E-1 grab sample
(1) = Defined as 1,1,1-Trichloroethane, 1,1-Dichloroethylene, 1,1-Dichloroethane, Trichloroethylene and Freon 113